



State of Utah

GARY R. HERBERT
Governor

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Lieutenant Governor

Department of
Environmental Quality

Alan Matheson
Acting Executive Director

DIVISION OF DRINKING WATER
Kenneth H. Bousfield, P.E.
Director

July 20, 2015

Roy Benson McDaniel
Aspen Crest Girls Camp Water System
Corporation of Presiding Bishop
Natural Resources Services
50 East North Temple St., Room 1205
Salt Lake City, UT 84150-6320

Dear Mr. McDaniel,

Subject: **Temporary Operating Permit**, Upgrade Pump Station (PF001), Upgrade Stewart Ranch Spring (WS001) Spring Box, and Upgrade Seasonal Start-Up Disinfection System (TP001), Water System #26012, File #09637

This letter is not a permanent "operating permit" for ongoing disinfection (TP001).

On April 4, 2014, the Division of Drinking Water received engineering plans and construction contract documents for the subject project from your consulting engineer, Tena Campbell, P.E., Bowen, Collins & Associates, Draper, Utah. We issued pre-construction plan approval in a letter dated July 18, 2014. Your consultant's May 11, 2015, post-construction operating permit issuance request to us identified substantial in-the-field modifications by the contractor due to field conditions encountered. We sent you email notification on May 29, 2015, of verbal temporary operating permission so that the Camp could open on schedule for the summer 2015 season. Our letter today is written notice of the same temporary operating permission that we verbally issued on May 29, 2015.

Our understanding of the finished construction for the subject project is as follows. During actual construction, the Stewart Ranch Spring was discovered to be upwelling in an existing SR 35 roadside manhole on the same side of SR 35 as the Camp. The manhole was found to have a perforated spring box at its bottom. [The pre-construction assumption that there were spring collection pipes running from a collection area on the opposite side of SR 35 to

the manhole was incorrect.] Therefore, the manhole could not be removed, as initially planned, because it is integral to the spring hydraulics. The contractor elected instead to make vent and overflow modifications to the manhole to bring it into compliance with Rule *R309-515-7(7)* standards for spring boxes. Downstream of the manhole, a sometimes flooding-imperiled spring box on the transmission route to the Camp was successfully removed and replaced by a segment of new transmission pipe, as originally planned. This resulted in a continuous run of new and old transmission pipe starting at the manhole/spring and terminating at an existing booster pump house some 1,000 feet to the Camp interior. The booster pump house wet well was upgraded with an 18-inch tall concrete curb in lieu of originally planned access hatch modifications. And, the booster pump house's disinfection system was successfully upgraded with an Anderson hypochlorination system and ancillary equipment as originally planned. Lastly, the booster pump itself had to be replaced when the contractor found it too deteriorated to remain in operation as originally intended.

We understand that you now also wish to operate the new disinfection system continuously throughout each summer rather than simply 1-2 days during start-up of the water system each summer. This letter represents temporary permission to implement ongoing disinfection/chlorination as long as you also take 12 monthly bacteriological water quality samples of the Stewart Ranch Spring (WS001) water prior to the disinfection process. We need the results of these samples to prove that ongoing disinfection/chlorination is for precautionary purposes at a safe water supply rather than remedial purposes at an unsafe water supply.

We have attached to this letter a new Monitoring Schedule for your water system. Please note that, per the new Monitoring Schedule, your water system is still required to take one routine bacteriological water quality sample, i.e., coliform (TCR), per quarter from the hereafter chlorinated distribution system (DS001). This quarterly sample is different from the newly-prescribed monthly raw spring source (WS001) samples ahead of any chlorine addition. **It is imperative that the two different sample locations, i.e., upstream WS001 versus downstream DS001, be accurately noted on the respective sample bottles, and sample report forms.**

Also, the now-allowed ongoing continuous disinfection/chlorination requires that you start submitting quarterly chlorination reports to the Division. Rule *R309-105-10(1)(c)* states that chlorine residuals must be taken from the distribution system at least three times per week, and be reported each quarter. The chlorination report template for ground water systems ("Quarterly Report for D/DBP Rule Compliance - Ground Water Systems") can be found on the Division's web site:

www.deq.utah.gov/forms/water/dw/docs/2014/03Mar/xls/GW_DBPR_Quarterly_Report.xls

Roy Benson McDaniel
July 20, 2015
Page 3 of 4

The chlorine residual must be at least 0.2 ppm before the first connection, remain detectable in the distribution system, and must not exceed 4.0 ppm. The chlorination report is due the tenth day of the month following each quarter, i.e., January 10th, April 10th, July 10th, and October 10th. The report can be faxed to (801) 536-4211, emailed to ddwreports@utah.gov, or mailed to the Division. Please contact Brad Holdaway, DBP Compliance Manager, at (801) 536-0063, or bholdaway@utah.gov, if you have any questions.

This letter is your temporary operating permit to continue to use the subject new infrastructure (upgraded manhole/spring box, upgraded wet well, new "continuous" disinfection system, and new booster pump) through September 30, 2016. As expiration of this temporary operating permit approaches later next year, we will review the bacteriological sampling results from the un-disinfected spring flow, and we will determine if issuance of a permanent operating permit for ongoing disinfection is warranted. The permanent operating permit decision for the other project components will be deferred by us until that same time only because it is more logical to address everything in one eventual permanent operating permit.

We have already received satisfactory results from our previously prescribed heterotrophic plate count (HPC), and microscopic particulate analysis (MPA), of water from the Stewart Ranch Spring (WS001). So, the weekly bacteriological sampling requirement at the source water, put forth in our email of May 29, 2015, can now be disregarded by you because the MPA results show very low risk of "under direct influence" (UDI) of surface water. You will receive separate notification from us of those results.

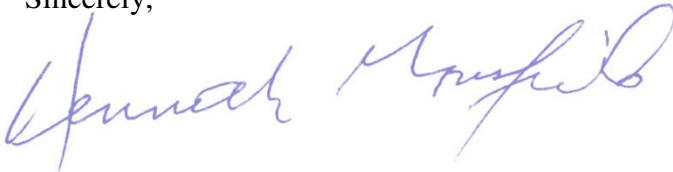
At such time as we review the file for the eventual permanent operating permit, we will verify our receipt of the required documentation, including:

- Design engineer's statement of conformance with plan approval conditions;
- Design engineer's statement of conformance with the Rule for any deviation from the plan approval.
- Evidence of O&M manual delivery.
- As-built drawings.
- Satisfactory bacteriological results.
- Water quality data (raw and post-disinfection)

Roy Benson McDaniel
July 20, 2015
Page 4 of 4

Please maintain a copy of this temporary operating permit with your permanent records for future reference. If you have any questions regarding this temporary operating permit, please contact Steven Onysko, P.E., of this office, at (801) 536-0096, or Ying-Ying Macauley, Engineering Section manager, of this office, at (801) 536-4188.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kenneth H. Bousfield".

Kenneth H. Bousfield, P.E.
Director

sj

Enclosure – updated monitoring schedule

cc: Dwight Hill, Environmental Health Director, Wasatch County Health Department,
dhill@co.wasatch.ut.us
Tena Campbell, P.E., Bowen, Collins & Associates, tcampbell@bowencollins.com
Steven Onysko, P.E. Division of Drinking Water, sonysko@utah.gov
Brad Holdaway, Division of Drinking Water, bholdaway@utah.gov
Rachael Cassady, Division of Drinking Water, rcassady@utah.gov
Janet Lee, Division of Drinking Water, jjlee@utah.gov

DDW-2015-008404.docx

Utah Department Of Environmental Quality

Division Of Drinking Water

ASPEN CREST GIRLS CAMP	PWS ID: UTAH26012	Rating: Approved	04/09/1996	Active
Legal Contact		Site Updates		Consumptive Use Zone
CORP OF PRESIDING BISHOP- LDS CHURCH		Last Inventory Update: 06/17/2014		Irrigation Zone: 2
ROY BENSON MCDANIEL		Last Surveyor Update: 10/24/2014		Date: 02/15/2013
50 E NORTH TEMPLE ST, RM 1205		Surveyor: TRACY RICHARDSON		
NATURAL RESOURCE SERVICES		Operating Period: 6/1 - 9/30		
SALT LAKE CITY, UT 84150-6320		Last IPS Update: 07/15/2015 07:00:00		
Phone: 801-240-4656				
County: WASATCH COUNTY				
System Type: Non-Community				
Population: 600				

Admin Contacts

Name	Title	Office	Emergency	Email
MCDANIEL, ROY BENSON	ENGINEER	801-240-4656		mcdanielrb@ldschurch.org

Water Monitoring Report

BACTERIOLOGICAL MONITORING

DS001 (after disinfection/chlorination)

Sample Count	Type	Frequency	Schedule Begin	Schedule End	Analyte Name
1	Routine	Quarterly	10/01/2014		COLIFORM (TCR)

MONITORING REQUIREMENTS BY FACILITY

WS001 (before disinfection/chlorination)

ID	NAME				
WS001	STEWART RANCH SPRING				
Name	Sample Count	Type	Frequency	Last Sampled	Next Sample Due
E. COLI	1	Routine	Monthly		07/01/2015 - 07/31/2015
NITRATE	1	Routine	Yearly	08/20/2014	01/01/2015 - 12/31/2015
SULFATE	1	Routine	9 Years	08/14/2012	01/01/2020 - 12/31/2028

Open Compliance Schedule

Type	Required Activities	Severity	Created	Due
DEFY	CURRENT EMERGENCY RESPONSE PROGRAM	REC	12/31/2009	12/31/2010